CIHR IRSC
Canadian Institutes of Health Research

Fall 2009

Your Health Research Dollars at Work

An Update from the Canadian Institutes of Health Research

A Roadmap for Better Health and Health Care

CIHR has recently launched its new five-year strategic plan, *Health Research Roadmap: Creating innovative research for better health and health care*. The plan is the product of careful deliberation about our long-term vision and a rigorous assessment of the steps and resources needed to achieve this vision.

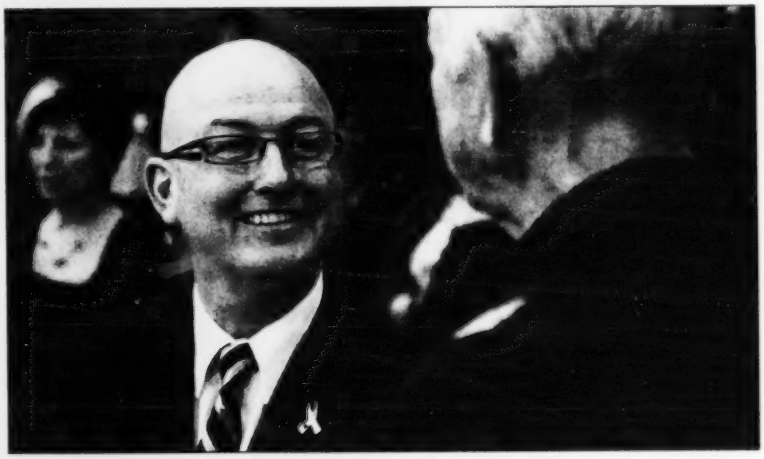
Roadmap articulates four strategic directions. The first strategic direction is our renewed commitment to investment in world-class research. Achieving excellence demands improvements to the peer review process, expanded efforts to train and sustain a highly qualified research workforce and the promotion of interdisciplinary research. The second strategic direction describes the role of health research in addressing health and health system research priorities. As an example, *Roadmap* lays out plans for a much-needed patient-oriented research strategy. We will be pursuing this goal in close collaboration with teaching hospitals, health professionals, federal and provincial health-care policy makers and private industry.

Roadmap's third strategic direction addresses the need to accelerate the capture of the benefits of health research. With this direction, CIHR will sharpen its focus on collaborations between researchers and health research users to increase the application of research findings. The final strategic direction stresses continued organizational excellence at CIHR. As an example, we will be developing a *Roadmap* implementation plan to ensure open and transparent evaluation of our progress towards goals outlined in the plan.

This is an exciting time in CIHR's history. We look forward to updating you on key milestones in the implementation of this plan.

Alain Beaudet, MD, PhD
President
Canadian Institutes of Health Research

Helping Canadians Achieve "Healthy Aging" Focus of Major National Study



David Sweet, MP for Ancaster-Dundas-Flamborough-Westdale, at the CLSA announcement at McMaster University.

Our rapidly aging population has become one of Canada's most pressing health and social policy issues. A major $30 million study, announced on May 21st and supported by CIHR, will address this issue head on.

"To craft sound public policy for the future and to put effective programs and practices in place, the Government of Canada needs quality, evidence-based advice on healthy aging," said David Sweet, MP, on behalf of Leona Aglukkaq, Minister of Health, at the announcement. The Canadian Longitudinal Study on Aging (CLSA) will follow 50,000 Canadians, aged 45-85 years, over the next two decades. Study organizers expect to hire up to 160 researchers and associated personnel over the next year at 10 centres across the country.

"Some people age in a healthy fashion despite many physical health challenges, while others who are in good physical health age less optimally. What explains this phenomenon? The study will answer questions that are relevant to decision-makers to improve the health of Canadians," said Dr. Parminder Raina, McMaster University, who is leading the study along with Dr. Christina Wolfson, McGill University, and Dr. Susan Kirkland, Dalhousie University.

About the Canadian Institutes of Health Research

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health-care system. Composed of 13 Institutes, CIHR provides leadership and support to more than 13,000 health researchers and trainees across Canada.

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NATIONAL

CIHR, NSERC Partner to Address Medical Isotope Shortage

Making the announcement in June were (left to right) Dr. Suzanne Fortier, President of NSERC, Dr. Morag Park, Scientific Director at CIHR's Institute of Cancer, Dr. Sandy McEwan, Special Advisor to the Minister of Health on Medical Isotopes and Minister of Health, Leona Aglukkaq.

CIHR and the Natural Sciences and Engineering Research Council of Canada (NSERC) are awarding $6 million in funding to a team of researchers developing alternatives to nuclear-produced Technetium-99m, a key medical isotope for diagnosing and treating conditions such as cancer and heart disease. The multidisciplinary research team will include experts from chemistry, physics, engineering and related fields.

CIHR, PHAC Partner to Protect Canadians from H1N1 Virus

CIHR and the Public Health Agency of Canada (PHAC) are creating a national influenza research network to speed up influenza vaccine research. Led by Dr. Scott Halperin, Director of the Canadian Center for Vaccinology in Halifax, the network will investigate ways to get H1N1 vaccine trials in humans started quickly, test the effectiveness of the new vaccine, and work on ways to create and distribute vaccines quickly. CIHR has awarded $13.5 million this year in support of pandemic-related research.

Toronto Student Wins Top Brain Title

Sean Amodeo took home a $1500 first place win from the Second Annual CIHR Canadian National Brain Bee at McMaster University in May. The York Memorial Collegiate graduate and 11 other students demonstrated their knowledge of neuroscience and their skills at patient diagnosis and neuroanatomy. For more information, go to www.science.mcmaster.ca/brainbee/.

Front row (from left to right): Liwei Li (Guelph – 2nd place), Sean Amodeo (Toronto – 1st place), Sofia Essayan-Perez (Montreal – 3rd place)
Back row: Audrey Cheung (Calgary), Paul Lao (Vancouver), Jenny Lou (Edmonton), Nafisa Tasnim (Waterloo), Michael Sloan (St. John's), Iwona Borycz (Halifax), Stella Park (London), Jeremy Wang (Kingston), Julia Shin (Hamilton).

GACD signatories. (Back, from left): Depei Liu (China), Warwick Anderson (Australia), Abdallah Daar (University of Toronto), Stig Pramming (Oxford Health Alliance), and Leszek Borysiewicz (U.K.). Seated: Elizabeth Nabel (U.S.) and Alain Beaudet (Canada). (Note: India also recently joined.)

INTERNATIONAL

Canada Joins Global Effort to Beat Chronic Diseases

Canada, U.S., U.K., China, Australia: CIHR has partnered with five other national health research councils to fight chronic noncommunicable diseases such as cardiovascular disease, stroke, cancer, diabetes and chronic respiratory diseases. The first meeting of the Global Alliance for Chronic Diseases (GACD) is scheduled for November 2009.

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WESTERN CANADA

Overweight Adolescent Girls More Likely to Develop Asthma

Winnipeg: Prepubescent boys are more likely to have asthma than girls, but this difference disappears once girls who are overweight or obese reach puberty. Dr. Allan Becker at the Manitoba Institute of Child Health has assembled an interdisciplinary team of experts to understand the biological and sociological factors that trigger this higher risk in adolescent girls – a risk that continues into adulthood. "We believe there is a window of opportunity to actually prevent development of asthma among young women," said Dr. Becker.

New Online Resource Available for People with Rheumatoid Arthritis

Dr. Linda Li

Vancouver: With support from CIHR, researchers at the University of British Columbia and the Arthritis Research Centre of Canada are creating an interactive tool that will help patients with rheumatoid arthritis find the best treatment option for their condition. Led by clinical epidemiologist Dr. Linda Li and social worker Paul Adam, the team is working with the Centre for Digital Media in Vancouver to create the Animated, Self-serve, Web-based Research (ANSWER) tool. "The patients can use the program to find information tailored to their condition and print out a one-page report with their concerns, questions and initial decisions about treatment. They can then take this report to discuss with their doctor," says Dr. Li.

Universal Flu Shots Reduce Antibiotic Use

Dr. Fawziah Marra

Vancouver: A program of universal vaccination for seasonal flu sharply reduced inappropriate antibiotic use, a CIHR-supported study has found. Dr. Fawziah Marra at the University of British Columbia and BC Centre for Disease Control discovered that the universal influenza program, which began in Ontario in 2000, reduced the use of emergency services as well as the influenza-associated mortality rate. In addition, the universal program also resulted in 64% fewer flu-associated antibiotic prescriptions. In contrast, the rate of such prescriptions did not change significantly in other Canadian provinces, where flu vaccination was targeted to specific groups, Dr. Marra and her team said. "Jurisdictions wishing to decrease antibiotic use might consider programs to increase influenza vaccination," the researchers concluded.

CENTRAL CANADA

Education Can Reduce Teen Dating Violence

Dr. David Wolfe

Toronto: A low-cost, school-based program that integrates information about healthy relationships into the existing ninth-grade curriculum appears to reduce adolescent dating violence, especially among boys, according to a study led by Dr. David Wolfe and colleagues at the University of Toronto. When the adolescents who participated in the randomized trial were surveyed two and a half years later, rates of physical dating violence were greater in the control students (9.8%) than in the students who participated in the program (7.4%). The average cost of training and materials was just $16 per student.

Discovery Links Wheat Proteins and Type 1 Diabetes

Ottawa: An abnormal immune response to wheat proteins may be responsible for some cases of type 1 diabetes, according to a CIHR-funded study. Dr. Fraser Scott and collaborators from the Ottawa Hospital Research Institute and the University of Ottawa tested 42 people with type 1 diabetes, and found that nearly half had an abnormal immune response to wheat proteins. It's the first research to clearly show that immune cells, called T cells, from people with type 1 diabetes are also more likely to over-react to wheat.

The research team: (front, left to right) Gen-Sheng Wang, Brigitte Sonier, Jennifer Crookshank and Cristina Slatculescu; (back) Alexander Strom, Majid Mojibian, Christopher Patrick and Dr. Fraser Scott.

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New Class of Drugs Moves into Clinical Trials

Dr. Sylvain Chemtob

Montreal: Allostera Pharma Inc. has raised $17 million in venture capital to commercialize an entirely new class of drugs that were developed by Dr. Sylvain Chemtob at the Université de Montréal, with funding from CIHR. The funding will enable Allostera to move its breakthrough Allosteramers™ drugs into preclinical studies and human clinical testing. The drugs, which can be taken orally, appear safer and more effective for treating inflammation and autoimmune disorders. The technology used to develop the drugs also shaves years off the drug development cycle.

Study Finds Way to Improve Cardiac Care in Canada

Dr. Shamir Mehta

Hamilton: It is not known whether patients with smaller or threatened heart attacks (which outnumber full-blown heart attacks by 2:1), also benefit from early angioplasty. A new CIHR-funded study found that most patients with smaller or threatened heart attacks do not need an immediate angioplasty, a procedure that opens narrow or clogged blood vessels. Only those patients who are deemed to be high risk need immediate transfer to a tertiary care center. The findings from the global study, led by McMaster University researchers are especially good news for people living in rural and remote areas where certain medical procedures aren't immediately available. "In areas that do not have timely access to these procedures, patients coming to hospital with small or threatened heart attacks can be treated with aspirin and other anti-clotting medications and be transferred to a catheterization laboratory a few days later without undue harm," says principal investigator, Dr. Shamir Mehta.

Tomatoes and Other Micronutrient-Rich Foods Reduce Risk of Prostate Cancer

Toronto: Researchers at Sunnybrook Health Sciences Centre in Toronto have found that a diet rich in vitamin E (vegetable oils, nuts, seeds, wheat germ and eggs), selenium (whole grains, Brazil nuts, seeds, wheat germ and eggs) and lycopene (tomatoes, guava, watermelon, pink grapefruit) reduces the incidence of prostate cancer in mice. "This early intervention of a unique micronutrient combination has the potential to prevent the development of tumours in patients with enlarged prostate glands and in patients at higher risk," says lead researcher Dr. Vasundara Venkateswaran.

Canadian Institutes of Health Research
160 Elgin Street, 9th Floor
Ottawa, Ontario K1A 0W9
Canada

Tel.: 613-941-2672
Toll Free: 1-888-603-4178
Fax: 613-954-1800

www.cihr-irsc.gc.ca

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EASTERN CANADA

Outreach Centres Extend Benefits of Health Research Across Newfoundland

Dr. Patrick Parfrey

Grand Falls-Windsor: Memorial University is establishing a provincial network of outreach offices conducting research on human genetic disorders and population health in the province. With funding from CIHR, the offices will help to translate key research findings into information that community and health-care providers can use, and to inform health policy with the aim of improving delivery of care in rural and remote areas of the province. The Memorial team has developed key partnerships with the Government of Newfoundland and Labrador, Department of Health and Community Services, Central Health Corporation and rural physicians who will directly benefit from the evidence-based research that emerges from the work, says Dr. Patrick Parfrey, Associate Dean of Clinical Research in the Faculty of Medicine at Memorial.

CIHR's *Your Health Research Dollars at Work* is available to Members of Parliament, Senators and policy makers to communicate the benefits of the Government of Canada's investment in health research. News items can be reproduced for use in householders and other communications materials. Visit CIHR's website to download this issue in electronic form, at **www.cihr-irsc.gc.ca/e/35235.html**. If you would like a copy, please contact Caroline Kay, CIHR's Publications Production Coordinator, at **caroline.kay@cihr-irsc.gc.ca**.

Upcoming Events/News

Each month: Café Scientifiques in cities across Canada dealing with topical health issues. www.cihr.gc.ca/cafe_scientifique.html.